

STORAGE

FAQ

Q I've accidentally erased some critical files. Is there any way that I can recover them?

A Certain utilities, such as Norton SystemWorks, may be able to recover erased files. These utilities rely on the way Windows deletes files. When you delete a file in Windows, the files may no longer be accessible from Windows Explorer but they haven't yet been erased, merely marked as deleted. A file is erased only to make way for any new files as they are created. To maximise the chance of a successful recovery using a recovery utility, ensure that you minimise any unnecessary write operations to your hard disk.

Windows' System Restore utility isn't designed for recovering deleted files as it ignores the My Documents folder. The best cure is prevention. Ensure you make regular backups of your files and use a backup utility that supports versioning so you can keep older versions of your files.

Alan Lu
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HP Media Vault MV2010

★★★★

£250 inc VAT

HP makes a wide variety of products from printers to PCs, but the Media Vault MV2010 is the first network-attached storage (NAS) device we've seen. It looks like one of HP's Pavilion tower PCs shrunk to the size of a large telephone directory. It isn't loud, although we could hear the occasional whirring of disk activity in a quiet room.

The web-configuration interface is clearly laid out and easy to navigate with all the options unmistakably labelled. It's one of the best NAS configuration interfaces we've seen. A setup utility automatically offered to map a drive letter to shared folders on the Media Vault for easy access.

The included backup software can schedule backups as well as keep older versions of your data in case you delete or change files you shouldn't. There's no support for Windows file attributes, which can be troublesome, as read-only files will become alterable, for example.

The Media Vault has a single 300GB hard disk, but we were surprised to find a removable tray that can accommodate a second SATA hard disk. The two disks can be configured as a RAID 0 array, so they pool their space together as one large volume. Alternatively, they can be used together as a RAID 1 array, halving the total capacity available for use, but preserving all your data on one disk if the other fails.

Although the Media Vault isn't the fastest NAS we've seen, it



performed well when dealing with large files. It was more lacklustre when copying small files, though, with particularly slow write times. Copying lots of small files to and from the Media Vault will require patience. Shared folders can be password-protected, but different users have to log in with the same password instead of having their own individual, customised access privileges.

The same limitation applies when users access the Media Vault remotely via FTP, which isn't very secure.

We had no trouble playing videos and music stored on the Media Vault using a UPnP network media player. Using the Media Vault to share a USB printer and the contents of USB flash drives and hard disks over our network was also problem-free.

We liked the Media Vault's uncomplicated configuration, RAID support and respectable

performance in our large files benchmark. However, we were disappointed by its sluggish speeds in our small files tests. It's also fairly expensive at 90p per gigabyte.

If you just need a simple file server, we'd recommend TrekStor's 250GB DataStation, which costs only £114 (reviewed in *Labs, Shopper* May 2007). If you need a NAS device with extra features such as a UPnP server, Maxtor's 1TB Shared Storage II (see 'Also consider...' below), is excellent value. It doesn't have an FTP server, but at 46p per gigabyte, it's a better buy.

Alan Lu

SUMMARY

- ✓ Easy to configure
- ✗ High cost per gigabyte
- ✗ Small files performance not great

NETWORK-ATTACHED STORAGE 300GB hard disk, 279GB formatted capacity, 10/100/1,000Mbit/s network connection, three USB ports, UPnP media, USB disk, FTP and print servers
PART CODE RQ397AA
SUPPLIER www.pcvworld.co.uk
DETAILS www.hp.com

PERFORMANCE (see page 56)



Also consider...

WESTERN DIGITAL Passport 120GB

★★★★★

£62 inc VAT

PRICE CUT!



WE'VE SEEN Western Digital's Passport before, but the 120GB is slimmer. The underside is coated in rubber, so it's less likely to skid across your desk, and the lone USB port is protected by a rubber flap. Western Digital has included its own synchronisation software, although it can't schedule backups.

There's no FireWire port, but Passport is more than fast enough for everyday use and is very cheap.

EXTERNAL HARD DISK 120GB capacity, 111GB formatted capacity (NTFS), USB Hi-Speed, USB powered
PART CODE WDXMS1200
SUPPLIER www.amazon.co.uk
DETAILS www.western-digital.com ✓ Low cost per gigabyte; rubber bottom prevents slippage ✓ Faster portable hard disks are available
FULL REVIEW Feb 2007



MAXTOR Shared Storage II 1TB

★★★★★

£426 inc VAT

PRICE CUT!



BEST BUY Maxtor's Shared Storage II has an enormous capacity

of 1TB, and costs only 46p per gigabyte. As it contains two hard disks, you can choose to configure it as a RAID 0 or RAID 1 array.

The Shared Storage may not be the fastest network storage device we've seen, but its low price, RAID support and UPnP media server make it a great buy.

NETWORK STORAGE DEVICE 1TB hard disk, 928GB formatted capacity, 10/100/1,000Mbit/s network connection, two USB ports, UPnP media, iTunes, print, USB disk servers
PART CODE N14R010
SUPPLIER http://uk.insight.com
DETAILS www.maxtorsolutions.com ✓ Low cost per gigabyte; easy to configure; RAID 1 support
FULL REVIEW May 2007



STORAGE DEPOT DVD Multiformat Combo

★★★★

£60 inc VAT



External DVD writers with both FireWire and USB ports are usually pricier than USB-only burners but Storage Depot's DVD Multiformat Combo drive is the cheapest we've seen to have both interfaces. Its silver and blue case isn't very stylish, but the important thing is its disc-burning speed.

Sadly, its speeds in our DVD-R and DVD+R test couldn't match the claimed 18X. Its DVD+R DL write speed was worse, significantly less than the stated 10X. It was also one of the slowest external drives we've seen in our DVD-R DL test.

Storage Depot bundles a copy of Nero 7 Essentials, which includes utilities for both burning discs and watching DVD movies. It's a good application and common with DVD writers. But unless you need FireWire, HP's dvd940e (see 'Also consider...') is faster at writing discs and cheaper.

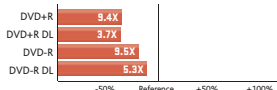
Alan Lu

SUMMARY

- ✓ USB and FireWire ports
- ✗ Ugly case
- ✗ Disappointing performance

EXTERNAL DVD WRITER 18X DVD-R, 18X DVD+R, 6X DVD-RW, 8X DVD+RW, 8X DVD-R DL, 10X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW
PART CODE COMBODVDWR
SUPPLIER Storage Depot 0118 375 8308
DETAILS www.storage depot.co.uk

PERFORMANCE (see page 56)



LITE-ON SuperAllWrite SSM-85H5SX

★★★★

£68 inc VAT



Adding a portable USB burner, such as the SSM-85H5SX, is much easier than installing an internal notebook drive (see *Upgrade Workshop*, *Shopper* March 2007).

The SSM-85H5SX is lightweight and can label LightScribe discs. Its disc-writing performance is reasonable, but not outstanding. It managed to write single-layer DVDs at around half its stated 8X. It came closer to meeting its claimed 4X for writing DVD+R DL and DVD-R DL discs.

Lite-On provides Nero 7 Essentials for burning discs and Nero Recode, so you can fit a two-layer DVD movie on a single-layer disc.

The SSM-85H5SX isn't well suited for portable use as it needs a mains adaptor. Freecom's FS-50 (*Labs*, *Shopper* April 2007) can be powered over USB, making it the better portable burner.

Alan Lu

SUMMARY

- ✓ Lightweight
- ✓ Compatible with LightScribe
- ✗ Needs mains adaptor

EXTERNAL DVD WRITER 8X DVD-R, 8X DVD+R, 6X DVD-RW, 8X DVD+RW, 4X DVD-R DL, 4X DVD+R DL, 5X DVD-RAM, 24X CD-R, 24X CD-RW
PART CODE SSM-85H5SX
SUPPLIER www.dabs.com
DETAILS www.liteonit.eu

PERFORMANCE (see page 56)



CHOOSING AN... Internal Hard Disk

Follow the steps to find your ideal specs

CAPACITY: 250GB

SPINDLE SPEED: 7,200rpm

INTERFACE: PATA or SATA

Recommended minimum in grey

1 An internal hard disk with the above specifications should cost around £50. It's fast enough for general use and provides enough storage space for an average user. Make sure you get the interface type that matches your PC.

Parallel ATA (PATA) connectors use wide, ribbon cables and are generally found in older computers. The newer Serial ATA (SATA) interface uses a thinner cable and is slightly quicker.

2 PATA hard disks require a standard four-pin Molex power cable. Some SATA disks can also use a Molex power connector, but others require the newer SATA power connector. If your power supply doesn't have any SATA power leads then you can buy a converter for around £4 including VAT from www.maplin.co.uk.

3 Buy the capacity hard disk that you'll need, but aim to leave a little breathing room, as you'll always need more storage. Hard disks with a capacity of 300Gb to 400GB tend to have the lowest cost per gigabyte, but not by much. Buy the largest hard disk that you can justify.

4 If you want more disk space or you want to protect your data, think about buying hard disks to create a RAID array. These use multiple hard disks to create a single, large, logical disk with better performance or protection for your data. RAID arrays need to be built with hard disks of the same size. Technically, these can be from different manufacturers, but try to get identical drives if you can.

5 A hard disk's spindle speed is very important as it governs how quickly the disk can transfer data. A spindle speed of 7,200rpm is common on desktop drives and fast enough for most purposes. If you do a lot of video editing or you run demanding applications, a 10,000rpm hard disk is a better choice, but it is a lot more expensive. Hard disks with 5,400rpm spindle speeds aren't common and are quite slow, but they generate less heat and noise so could be a good choice if you're building a small, quiet PC.

SAMSUNG Super Writemaster SH-S182M

★★★★★

£28 inc VAT



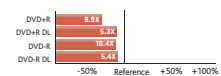
The Super Writemaster from Samsung



proved to be one of the speediest internal burners we've seen when creating single-layer DVDs. It includes Nero's Recode software, which allows you to squeeze a two-layer DVD movie on to a single-layer DVD.

At such a low price, the Writemaster is a bargain.

INTERNAL DVD WRITER 18X DVD-R, 18X DVD+R, 6X DVD-RW, 8X DVD+RW, 8X DVD-R DL, 8X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW
PART CODE SH-S182M/RSMN
SUPPLIER www.komplett.co.uk
DETAILS www.samsungodd.com/eng ✓ Speedy single-layer DVD writing ✗ Slow two-layer DVD performance
FULL REVIEW Apr 2007



HP dvd940e

★★★★★

£47 inc VAT



HP's dvd940e is one of the cheapest

external DVD writers we've seen. It can write a LightScribe label in around 18 minutes, which is very fast. The bulbous black case isn't pretty but feels sturdy, and Nero Express 6 and PowerDVD 6 are included.

The dvd940e performed particularly well writing DVD-R DL discs and is very good value.



EXTERNAL DVD WRITER 18X DVD-R, 18X DVD+R, 6X DVD-RW, 8X DVD+RW, 8X DVD-R DL, 8X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW
PART CODE 3744216092
SUPPLIER www.scan.co.uk
DETAILS www.hp.co.uk ✓ Cheap; fast DVD-R DL writing ✗ Not very pretty
FULL REVIEW Apr 2007

